

REMARKS

This responds to the Office Action mailed on March 14, 2007.

Claims 1-12, 14-24 and 31- 36 remain pending in this application.

§112 Rejection of the Claims

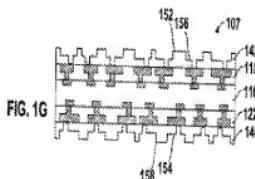
Claim 9 was rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection and requests the Office to consider the following. The Office queries: (i) how many layers are on the upper surface of the substrate? Applicant answers, claim 9 teaches text from the specification:

“ ... the substrate (e.g. substrate 110 in FIG. 1G) includes an upper surface and a lower surface, wherein the first polymer is disposed upon the upper surface, wherein the first polymer includes a cured polymer upper first film (e.g. structure 118 in FIG. 1C), wherein the subsequent polymer includes a cured polymer upper second film (e.g. structure 142 in FIG. 1G), and upon the lower surface, the process further including: first thermal curing a lower first polymer (e.g. structure 122 in FIG. 1F) under conditions to heat the lower first polymer at greater rate than the substrate; and subsequently thermal curing an imprinted subsequent lower polymer (e.g. structure 146 in FIG. 1F) disposed over the lower first polymer.

The Applicant has also taught in the specification, that the term for “ ‘subsequent’ processing refers to processing of the cured polymer second film”. Reference is again made to Applicant’s previous response to a previous Office Action.

cured polymer *lower first film* 122. The lower first metallization 138 is at least partially surmounted with a cured polymer lower second film 146. The cured polymer lower second film 146 includes a second topology 154 (FIG. 1G) that is filled in with a lower second metallization 162. The lower second metallization 162 shares a lower surface with a second lower surface 158 of the cured polymer *lower second film*

146.



(ii) “how to form “subsequent upper second film” This phrase, “subsequent upper second film” cannot be found in claim 9, by the Applicant, and requests the Office to kindly show where it is found. (iii) where a lower first polymer is disposed; upon the upper or lower surface. Applicant responds that all lower structures are formed on lower surfaces, and all upper structures are formed upon upper surfaces.

Withdrawal of the rejection is respectfully requested.

§103 Rejection of the Claims

Claims 1, 2, 4, 5, 7, 10-12, 14, 15 and 17-19 were rejected under 35 USC § 103(a) as being unpatentable over Jacobson et al. (U.S. 6,517,995). The Applicant respectfully traverses this rejection and requests the Office to consider the following.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), M.P.E.P. §2131, 8th Ed., Rev. 4).

Further,

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (M.P.E.P. § 2143 8th Ed., Rev.4).

The Office admits that “Jacobsen et al fail to teach *in situ* testing the substrate while attached as part of an array of substrates.” Applicant agrees.

The Office repeats the reasoning that “[i]t is well known in the art that after metallization, the substrate is conventionally tested for thickness and quality of a deposited metal coating.” Applicant respectfully requests citation to an asserted reference to support this assertion. The Office continues that “[t]he testing of a metallized substrate can be done either *in situ* or after separating it from its lay out.” Applicant respectfully requests citation to an asserted reference to support this assertion. The Office continues that “[o]bviously, one of ordinary skill in the art

would perform *in situ* testing if it is possible without separating it from its lay out to speed up the testing.” Again, Applicant respectfully requests citation to an asserted reference to support this assertion.

Applicant notes that these assertions are not based upon any cited reference, and as such, are rejections by fiat instead of rejection by the Patent Statute. (M.P.E.P. § 2143 8th Ed, Rev.4). Withdrawal of the rejection is respectfully requested.

Claims 1, 2, 4-12, 14-20 and 31-36 were also rejected under 35 USC § 103(a) as being unpatentable over Carter et al. (U.S. 6,730,617). The Office admits that “Carter fails to teach *in situ* testing the substrate while attached as part of an array of substrates.” Applicant agrees.

The Office repeats the reasoning that “[i]n situ testing the substrate would be obvious [for the same reasoning]”. But again, the Office has failed to provide a reference. A rejection made by fiat, is not a proper rejection under the Patent Statute or under the common law. Applicant notes that these assertions are not based upon any reference. (M.P.E.P. § 2143 8th Ed, Rev.4). Withdrawal of the rejection is respectfully requested.

Claims 1, 2, 4-12, 14-20 and 31-36 were also rejected under 35 USC § 103(a) as being unpatentable over Carter in view of Cobbley et al. (U.S. 6,545,498). The Applicant respectfully traverses this rejection and requests the Office to consider the following.

The Office Action admits “Carter fails to teach *in situ testing the substrate* while attached as part of an array of substrates.” (Emphasis added). The Office has likely chosen Cobbley, because of the phrase “*in situ*” that may be found. But Cobbley’s *in situ* test is not on the substrate as claimed. Rather, Cobbley’s *in situ* test is on dice, e.g. die 48 and die 48 as illustrated in Fig. 5. This is made clear in the paragraph at column 3 of Cobbley, beginning at line 19. Further, this is a tacit admission by the Office, that Carter does not, nor does any cited reference teach *in situ* testing as claimed. (M.P.E.P. § 2143 8th Ed, Rev.4). Withdrawal of the rejection is respectfully requested.

Claims 14, 15 and 17-19 were also rejected under 35 USC § 103(a) as being unpatentable over Jacobson et al. in view of Cobbley et al. The Applicant respectfully traverses this rejection and requests the Office to consider the following.

The Office admits that “Jacobsen et al fail to teach in situ testing the substrate while attached as part of an array of substrates.” Applicant agrees.

The Office has likely chosen Cobbley, because of the phrase “in situ” that may be found. But Cobbley’s in situ test is on individual dice, e.g. die 48 and die 48 as illustrated in Fig. 5. This is outside the scope of what is claimed. Further, this is a tacit admission by the Office, that Jacobson does not, nor does any cited reference teach in situ testing as claimed. (M.P.E.P. § 2143 8th Ed, Rev.4). Withdrawal of the rejection is respectfully requested.

Claims 3, 6, 20 and 31-33 were also rejected under 35 USC § 103(a) as being unpatentable over Jacobsen et al. in view of Bulthaup et al. (U.S. 6,936,181). The Applicant respectfully traverses this rejection and requests the Office to consider the following.

The Office again refers to Paragraph 10 of a previous Office Action that admits “Jacobsen et al fail to teach in situ testing the substrate while attached as part of an array of substrates.” Applicant agrees. But Bulthaup also fails to teach this limitation. Because all the claim limitations are not taught by the cited references, withdrawal of the rejections is respectfully requested. (M.P.E.P. § 2143 8th Ed, Rev.4).

Claims 31-33 were also rejected under 35 USC § 103(a) as being unpatentable over Jacobsen et al. in view of Cobbley et al., and further in view of Bulthaup et al.

The Office again refers to Paragraph 10 of a previous Office Action that admits “Jacobsen et al fail to teach in situ testing the substrate while attached as part of an array of substrates.” Applicant agrees. But Cobbley’s in situ test is not on the substrate as claimed. Rather, Cobbley’s in situ test is on dice, e.g. die 48 and die 48 as illustrated in Fig. 5. This is made clear in the paragraph at column 3 of Cobbley, beginning at line 19. But Bulthaup also fails to teach this limitation. Because all the claim limitations are not taught by the cited references, withdrawal of the rejections is respectfully requested. (M.P.E.P. § 2143 8th Ed, Rev.4).

Claim 3 was also rejected under 35 USC § 103(a) as being unpatentable over Jacobson et al./Carter in view of Walter et al. (U.S. 4,099,913).

The Office refers to Paragraph 9 of a previous Office Action that admits “Jacobson et al fail to teach in situ testing the substrate while attached as part of an array of substrates.”

Applicant agrees. The Previous Office Action also admits “Carter fails to teach in situ testing the substrate while attached as part of an array of substrates.” Applicant agrees. But Walter also fails to teach this limitation. Because all the claim limitations are not taught by the cited references, withdrawal of the rejections is respectfully requested. (M.P.E.P. § 2143 8th Ed, Rev.4).

Claims 6, 8, 9, 16, 20, 31 and 34-36 were also rejected under 35 USC § 103(a) as being unpatentable over Jacobsen et al. in view of Carter.

The previous Office Action that admits “Jacobson et al fail to teach in situ testing the substrate while attached as part of an array of substrates.” Applicant agrees. The Previous Office Action also admits “Carter fails to teach in situ testing the substrate while attached as part of an array of substrates.” Applicant agrees. Because all the claim limitations are not taught by the cited references, withdrawal of the rejections is respectfully requested. (M.P.E.P. § 2143 8th Ed, Rev.4).

Claims 31 and 34-36 were also rejected under 35 USC § 103(a) as being unpatentable over Jacobsen et al. in view of Cobbley et al., and further in view of Carter.

The previous Office Action that admits “Jacobson et al fail to teach in situ testing the substrate while attached as part of an array of substrates.” Applicant agrees. The Previous Office Action also admits “Carter fails to teach in situ testing the substrate while attached as part of an array of substrates.” Applicant agrees.

Cobbley’s in situ test is not on the substrate as claimed. Rather, Cobbley’s in situ test is on dice, e.g. die 48 and die 48 as illustrated in Fig. 5. This is made clear in the paragraph at column 3 of Cobbley, beginning at line 19. Because all the claim limitations are not taught by the cited references, withdrawal of the rejections is respectfully requested. (M.P.E.P. § 2143 8th Ed, Rev.4).

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (801) 278-9171 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Reservation of Rights

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of

RESPONSE UNDER 37 C.F.R. 1.116 – EXPEDITED PROCEDURE

Serial Number: 10/751,270

Filing Date: December 30, 2003

Title: CURING PROCESSES FOR SUBSTRATE IMPRINTING, STRUCTURES MADE THEREBY, AND POLYMERS USED THEREFOR

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Dkt: 884.888US1

priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

Respectfully submitted,

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